



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

various bees which visited a patch of columbine were observed. As the nectary tubes of these flowers are too long for the tongue of the bees, they invariably went to the rear of the flower and ripped the nectary open with the tongue. The bee working on the outside of the flower was in good position to show the normal use of the antennæ. The antennæ were invariably waved toward, then placed in direct contact with the nectary, and the presence or absence of food determined thereby. Out of thousands of bees which visited the flowers not one was observed to feed without first making an examination with the antennæ.

Many ants were studied in their travels, and the antennæ were found to be constantly in use. When near enough, making contact with the object; when further away, waving them towards the object.

Many species of Ichneumon flies were observed. Their antennæ are almost constantly in motion, apparently receiving most of their stimuli without contact.

For these reasons we believe that there are many types of epidermal cells widely scattered over the body which are normally capable of and do receive olfactory stimuli.

The arbitrary assumption of this function as belonging to any one type of cells without adequate cytological investigation can but lead to scientific mistakes. The call is for more and better cytological work.

Battle Creek, Mich.

E. W. ROBERTS.

ARACHNOIDISCUS IN MARYLAND DIATOMACEOUS EARTH

About a year ago a friend in Maryland sent me a piece of diatomaceous earth which was uncovered by the excavation for a State road. It did not look very promising, being very sandy. Some time later, however, I cleaned a part of it and during the process was rather disgusted to find fragments of *Arachnoidiscus* mixed with it. It never seemed possible that the diatom might belong there, so I cast the stuff away and started anew only to find them in the new batch. I then became suspicious, but remembering an article I had read by Kitton in an old number of Science

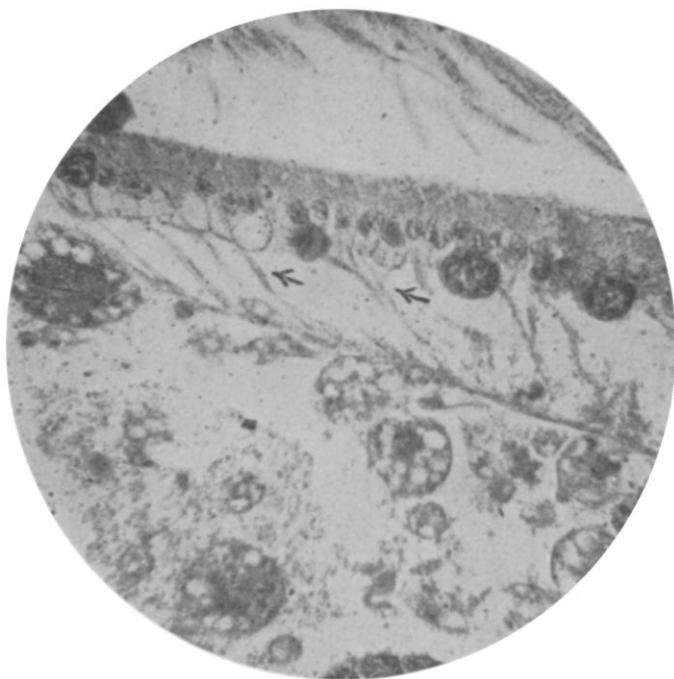


Fig. 1. Nerve Fibrils to Ectodermal Cells in Tussock Moth.

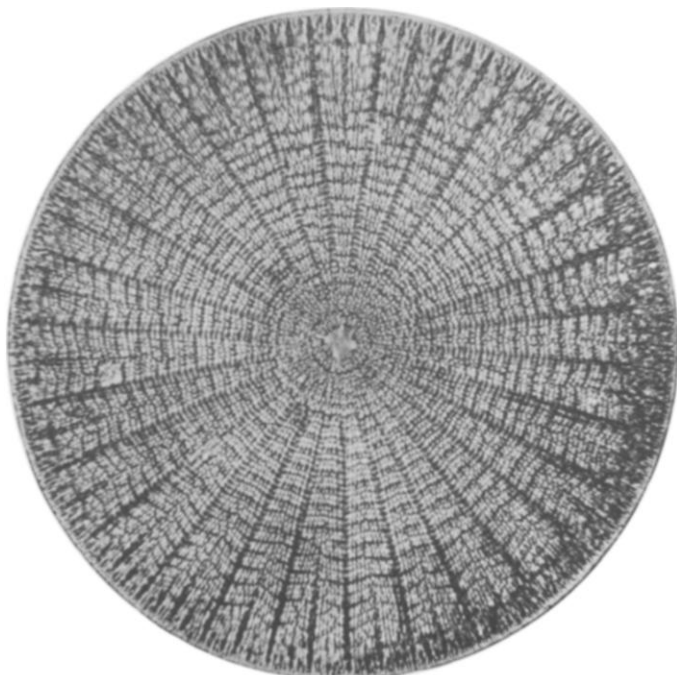


Fig. 2. *Arachnoidiscus ornatus*, Marylandica.

Gossip in which he attributed the finding of a frustule of *Arachnoidiscus* in British waters to the use of dirty cleaning vessels, I secured an entirely new set of glasses and started again. The result was conclusive. *Arachnoidiscus*, apparently *ornatus*, was there, plentifully, together with *Actinoptychus calicinus*, a form I have never before seen in the Maryland deposit.

Repeated cleanings have verified the find. I have since visited the locality and made careful examination of the bank from which it came.

The *Arachnoidiscus* apparently occurs only in the topmost part of the deposit, and a few feet underneath the level at which it occurs most plentifully it disappears entirely when we reach the typical rich bed of diatomaceous earth. Another outcrop about five hundred yards away also shows it; but elsewhere I have been entirely unable to find it.

The deposit, a part of the Maryland Miocene, of which the Richmond beds form a part, is at a point known as Bird's Hill on the State Road about nine miles south of Annapolis. At this place is about one hundred feet above sea level and is the highest point I know of at which this earth shows. The deposit is only a few feet above sea level at Ferry Landing opposite Nottingham and at the Calvert Cliffs on the Chesapeake Bay, both these latter places being about twenty-five miles south of Bird's Hill.

The *Arachnoidiscus* here mentioned closely resembles *Arachnoidiscus ornatus* of the Pacific and I have taken the liberty of naming it *Arachnoidiscus ornatus*, variety *Marylandica*.

I may be mistaken in thinking I have really made a discovery and regret that the great authorities are no longer alive to pass on it but I can find nowhere any reference to such a find either in Atlantic waters or in the fossil deposits adjacent thereto.

I am sending with this mounted specimens which I hope may be reproduced for the benefit of your readers who may be interested. (See Pl. XVI, Fig. 2).

BLANTON C. WELSH,
U. S. Army, Retired.

Montclair, New Jersey,
July 8, 1915.